INTEGRATED CIRCUIT DEVICES INCLUDING A MULTI-LAYER POLY FILM CELL PAD CONTACT HOLE AND METHODS OF FORMING THE SAME

ABSTRACT OF THE DISCLOSURE

Methods of forming a cell pad contact hole on an integrated circuit include forming adjacent gates on an integrated circuit substrate having a source/drain region extending between the gates. Gate spacers are formed on facing sidewalls of the adjacent gates. A cell pad contact hole is formed aligned to the gates and gate spacers that exposes the source/drain region in the integrated circuit substrate. A first poly film is formed in the cell pad contact hole. An ion region is formed in the source/drain region by ion-implanting through the first poly film and a second poly film is formed on the first poly film that substantially fills the cell pad contact hole.

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